

IN THE CLAIMS:

1. (Currently amended) A fuel injector comprising:

a fuel passage,

a valve disposed on the fuel passage,

a valve seat that receives the valve,

a jet opening having a diameter D2, the jet opening is formed in the valve seat and through which fuel is exhausted, the jet opening being opened when the valve is moved apart from the valve seat, and

a jet opening downstream channel having a diameter D1 and extending downstream from the jet opening through the valve seat and communicates the jet opening to the outside, wherein the diameter D1 of the jet opening downstream channel is double the diameter D2 of the jet opening at least in a region right below the jet opening,

a first channel and a second channel within the jet opening downstream channel, wherein the second channel is downstream said first channel and is continuously and smoothly connected to the first channel, said first channel has a constant diameter, while the second channel is conically enlarged away from the jet opening,

and wherein the diameter D1 of the jet opening downstream channel being arranged and adapted such that the valve seat has a wall thickness to prevent leakage of noise to the outside through the valve seat, which noise is caused by contact of the valve with the valve seat.

2. (Original) The fuel injector as set forth in Claim 1, wherein:

the diameter of the jet opening downstream channel is designed so as to ensure the diffusability of the fuel exhausted from the jet opening.

3. (Canceled)
4. (Canceled)
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)

11. (Currently amended) A fuel injector comprising:

- a fuel passage,
- a valve disposed on the fuel passage,
- a valve seat that receives the valve,

a jet opening having a diameter D_2 , the jet opening is formed in the valve seat and through which fuel is exhausted, the jet opening being opened when the valve is moved apart from the valve seat, and

a jet opening downstream channel having a diameter D_1 and extending downstream from the jet opening through the valve seat and communicates the jet opening to the outside, wherein the diameter D_1 of the jet opening downstream channel is double the diameter D_2 of the jet opening at least in a region right below the jet opening,

a first channel and a second channel within the jet opening downstream channel, wherein the second channel is downstream said first channel and is continuously and smoothly

connected to the first channel, said first channel has a constant diameter, while the second channel is conically enlarged away from the jet opening,

and wherein the jet opening downstream channel defining means for providing a wall thickness of the valve seat so as to prevent leakage of noise to the outside through the valve seat, which noise is caused by contact of the valve with the valve seat.